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Conference of A. & P. Officers

**Canberra,
11th - 15th September 1967**

Agenda

CONFERENCE OF A. AND P. OFFICERS

CANBERRA

11th - 15th September, 1967

AGENDA

1. Introduction
2. Form Addressing and Collection Control.
3. A. and P. A.D.P. System.
4. Overall Future Development of the A. and P. A.D.P. System.
5. Projects related to the A. and P. A.D.P. System.
 - (i) Edit Analysis.
 - (ii) Farm Size and Type Classification.
6. Progress Report on Farm Expenditure Survey, 1966-67.
7. 1967-68 A. and P. Forms.
8. Program for future development of Rural Statistics.
9. Value of Production.



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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

REPORT ON

CONFERENCE OF A. AND P. OFFICERS

AT

BRASSEY HOUSE, CANBERRA

11-15 SEPTEMBER, 1967

ATTENDANCE

Mr T. Mitchell	N.S.W.	Mr A. Bagnall	} Central Office
Mr E. Scotland	VIC.	Mr B. Dawson	
Mr N. Dunstan	VIC.	Mr B. Bird	
Mr M. Kalinowski	QLD.	Mr J. Woodrow	
Mr I. Rye	QLD.	Mr P. Howell	
Mr H. Vivian	S.A.		
Mr A. Renfrey	S.A.		
Mr A. McKinnon	W.A.		
Mr M. Konrath	W.A.		
Mr H. Moore	TAS.		
Mr W. Curran	TAS.		

The following persons also attended during the course of the Conference:-

Mr A. Taylor, Mr J. Humphries-Reid, Mr B. Hall, Mr R. Fergie, Mr R. Rye, Mr J. Lindsay, Mr A. Mikula, Mr G. Sarossy, Mr M. Carter, Mr P. Burrett, Mr F. Gilfelt.

AGENDA ITEM 1. INTRODUCTION

Mr Bagnall outlined the proposed agenda for the Conference and explained that on this occasion there would be increasing emphasis placed on statistical problems within the rural sector. In particular, consideration would be given to aspects related to value of production. Proposed agenda was approved.

AGENDA ITEM 2. FORM ADDRESSING AND COLLECTION CONTROL

Papers on the experiences of Victoria and Western Australia in the field of form addressing and collection control were distributed, and these two States briefly commented on their experience of mail collections.

General discussions on these papers centred mainly around the problems of changes of ownership, and problems of form handling, particularly in relation to the large manual work loads involved. It was felt that the move towards full computer methods would greatly reduce these problems of manual handling.

Central Office paper "Form Addressing and Collection Control by Computer", which had been circulated prior to Conference, was then discussed. It was stressed by Central Office that a uniform system should be developed that all States would be able to adopt, and it was essential that States should carefully consider their needs so that the proposed system could make allowance for them. A.D.P. indicated that it would not be possible at the present time to develop a program to insert postcode, but asked that, if the States should develop such a program, they inform Central Office.

The contents of the register and the address were discussed at some length. Western Australia indicated they did not wish area of holding to appear in the address label, because of the present label size limitation. However, they did require name of holding and location of holding in the register. They also asked that check digits be located in the same place as South Australia. South Australia, on the other hand, requested that area of holding be included in the address panel.

Central Office indicated there would be a facility to ensure a label could not be printed out for all names on the register. This would enable the register to include cancelled returns, as well as some form of cross-referencing. There would also be provision for special purpose codes to indicate holdings in a specific area, such as Esperance area, or possessing certain characteristics, such as a stud.

It was suggested that since returns would be sent interstate for addressing a method of serial numbering of all forms could be adopted to ensure the right number of forms and labels are returned. It would be necessary to check the range of numbers within each L.G.A. so that the forms and labels for each L.G.A. could be accounted for. The question of confidentiality in forwarding a list of farmers' names to an Addressing Service Centre was also raised. This had been resolved in Victoria, where it had been decided confidentiality would be satisfied if a Bureau officer was present during the operation.

On the broader aspects of collection control, it was emphasised by Central Office that computers should be used wherever possible to alleviate the clerical duties of form handling and sorting. A.D.P. would look into the possibility of providing printouts of last year's returns to minimise the difficulties of matching. Western Australia and Tasmania indicated they were interested in such an idea, particularly if alpha description could be provided to indicate each section of the returns.

It was agreed that formalising instructions and punching instructions would be forwarded to South Australia and Western Australia early in October, as both States desired to complete data preparation by the end of December. It was indicated that programs would be available by the following dates:

Register printing - end October

Register editing - middle November

Register amendment - end November

AGENDA ITEM 3. A. AND P. A.D.P. SYSTEM

A paper prepared to Central Office containing comments by all States on their experience with the operation of the system in 1966-67, and suggested modifications for 1967-68 (circulated to all States prior to the Conference), formed the basis of discussion. It was clarified that the State requirements for the 1967-68 system would be viewed against available A.D.P. resources and the priorities attached to the various requirements by the States.

Operations prior to data preparation

It was generally agreed that the elimination of comptometrist checking of totals and the general introduction of automatic computer adjustment without tolerances had been largely successful.

However, it was reported that this procedure had generated a large number of disagreements of total items. It was suggested that the introduction of the following two new forms of computer adjustment would assist in alleviating this problem.

- (i) If the total acreage of a crop is greater than the total acreage of the corresponding crop varieties, the latter figure will be automatically adjusted. This adjustment will take the form of an "unspecified" variety to account for the difference.
- (ii) If the total number of sheep is greater than the total sheep breeds, the latter figure will be automatically adjusted. The amount of the adjustment will be added to a sheep breed to be selected by each State.

It was pointed out that as with all automatic adjustments, it was possible to check back to the return, and for an amendment to be made if necessary.

The following average daily rate of clerical editing of returns were reported and commented on by the States.

N.S.W.	141	returns	per	man-day
VIC.	162	"	"	"
QLD.	78 to 86	"	"	"
S.A.	70	"	"	"
W.A.	80	"	"	"
TAS.	90	"	"	"

Central Office recommended that all States should examine the possibility of reducing the workload attached to clerical editing, otherwise this could become an increasing restriction on the operation of the system in future years. The results of the 1966-67 edit analysis would be very pertinent in this connection.

Most States had been satisfied with the return batching arrangements, but N.S.W. and Queensland still encountered problems with batch headers. Central Office considered that the need for batching on the present basis should be kept under review.

Data Preparation

It appeared that the new item coding had worked satisfactorily, although difficulty had been experienced in some States with section codes not being punched, which could be overcome by improved form lay-out. It was agreed that the "page number unpunched" edit should be deleted from the system next year.

It was reported by N.S.W. and W.A. that the introduction of an 8 page form had been successful.

Batch edit and amendment procedure and output

The date of availability, the quality, and the format of output of the batch edit and amendment phase of the system were a considerable improvement on 1965-66.

It was agreed that prefixes for the holding reference number should be printed out in all query listings, and that it should be possible to amend all data, including prefixes.

States agreed that it was desirable for the facility to be available to identify special purpose returns with a maximum of 8 identifiers for any one return. This was anticipated as being of value in identifying developmental areas, etc. Also the desirability of being able to link identifiers between 2 years (e.g. estimated returns in both years) was recognised.

It was agreed that it was desirable to obtain batch summaries for corresponding returns from the previous year. In addition, States expressed interest in obtaining a RECLIST print-out for corresponding returns from the previous year in order to eliminate the need for extracting the actual returns for the previous year.

Appendix "A" is a summary of error types which arose from the batch edit phase in all States.

Creation and Amendment of State Returns File

The creation of the S.R.F. had operated satisfactorily. However, considerable difficulty had been experienced by the States with the largest numbers of returns in amending the S.R.F. This was a hardware problem which had largely been overcome by splitting the S.R.F. into a number of files. This was not intended to be a permanent feature of the system.

The facility to insert a value of zero, or amend to zero, on the S.R.F. would be introduced next year. It was also pointed out that it would be advisable to run the DUPLICS program after each update of the S.R.F. to ensure that the updated version of the S.R.F. was useable. It was noted that some States were using AMENDSRF for inserting data obtained as a result of queries sent to informants.

Preliminary Estimates

Those States which had used the system of ratio estimations of matched holdings expressed satisfaction with the results obtained. The possibility of the computer performing all calculations for preliminary estimation was raised. It was felt that it would be desirable to have a program which would provide ratio estimates at selected levels for selected items, with output in item by area format.

Central Office suggested that it would be beneficial to attempt to produce earlier preliminary estimates on an experimental basis. The timing of these estimates could be determined by the percentage of returns on the S.R.F., or at a certain date. This will be determined in discussions with Central Office.

Central Office suggested that consideration should be given to obtaining more detail from preliminary estimates (e.g. separate estimates for Cattle (Meat Production) and Cattle (Milk Production)).

Tabulations

States indicated that they favoured alpha descriptions on area by item tabulations. It was pointed out by A.D.P. that it would be expensive to add alpha descriptions to these tabulations. Several States mentioned the importance of alpha descriptions when keeping print-out as a permanent record. It was agreed that serious consideration would be given to this request. However, this would probably mean that the items on the printout could not be shown in form sequence, as had been requested by some States, but would be presented in item number sequence.

For special ratios and aggregates, States wished to incorporate these ratios in the body of the tabulations, rather than on a special page. Central Office proposed that special ratios and aggregates be included in item by area tabulations rather than area by item tabulations, as it would not be practicable to incorporate them in the latter format. All States agreed to this proposal with the exception of South Australia, who said they relied mainly on area by item tabulations, and therefore regarded special ratios in item by area format as unacceptable. Central Office indicated that despite this view, it may be necessary to make this innovation. South Australia would still be able to retain existing special ratios in area by item form adopted in 1966-67.

Central Office stated that item by area tabulations would be available for all minimum level aggregations next year. To incorporate special ratios and yields, modification would be made to existing programs to allow States to add ratios and yields to their program without reference to Central Office.

States wished to incorporate in area by item tabulations comparative figures for both the current and previous years. These details would be shown on alternate lines. It was considered that this facility should be available for all levels of tabulations and, if possible, for item by area tabulations.

Item and field counts, and conditional counts, were discussed and it was agreed that they would be retained in their present format. It was also pointed out, in respect of conditional counts, that definitions of items required for Commonwealth purposes in the various States had diverged over the years. Central Office would contact the States on this matter.

SPECLIST and RECLIST

SPECLIST had been used extensively by States during processing, particularly at the editing stage. RECLIST had been used less frequently. It was considered desirable that for SPECLIST, the 9th item should be replaced by the facility for obtaining a holding number prefix printed out against the reference number. It was also considered desirable that the number of batches in SPECLIST be increased from 10 to 40, and that SPECLIST should show comparative data for two years. A further request to show sub-totals in SPECLIST with an option to suppress details for individual returns was also noted.

Standard Item Codes

Central Office indicated that the next item classification manual would include number of fields and units of quantity.

General Operation of the System

The batch edit and amendment system had operated successfully, but general difficulties had been experienced at the tabulation stage. Amongst the improvements suggested were:

- (a) The automatic deletion of returns containing parity and checksum errors at the batch edit and amendment stages and an appropriate error message printed out. At present such returns are being transferred to the Batch Accept File and they cannot be deleted until AMENDSRF is run.
- (b) Similarly, the automatic deletion of returns containing parity and checksum errors from the S.R.F. when AMENDSRF is run. Provision should be made to re-insert these returns in the S.R.F. by normal amendment action.

It was also agreed that an essential feature of the system next year would be the facility to select areas and items in PARTAGG.

Communication

Whilst the quality of communication had varied during the year, it was felt that it had improved since the previous year. Central Office stressed that communication should take place between State subject matter and State A.D.P. branches; between State subject matter and Central Office subject matter branches; between State A.D.P. and Central Office A.D.P. branches; and between Central Office A.D.P. and Central Office subject matter branches. It was specially stressed that State subject matter offices should be in continuous contact with Central Office officers.

Run request forms were not used by all States, but Central Office felt it would be desirable for States to persevere and develop the use of this form.

Following discussion of the weekly progress report it was decided that next year "tabulation available for request" and "tabulations produced" should be reported. Central Office said that while it was realized that the report had limitations, it was the best means of obtaining an objective assessment of the situation.

Central Office particularly asked that it should be kept informed of any special adaptations or innovations made during the course of A.D.P. processing.

Ranking of Additional Facilities

A list of "desirable facilities" put forward at the Conference was prepared. (See Appendix B). A list of "essential facilities", which will be provided, was also prepared (see Appendix C).

States were requested to rank the desirable facilities, and to indicate whether they were "highly desirable" (indicated by an A), or "desirable" (indicated by a B). The results of this ranking are also shown in Appendix B.

The fact that a facility was regarded as highly desirable by most States would not necessarily result in its adoption next year. Other factors, such as programming costs, long term planning, available resources etc., would also have to be taken into consideration.

Timetable

The expected timetable for availability of programs for the 1968 Census is:-

6.

Batch Edit and Amendment	End March
Batch Edit	"
Batch Amendment	"
SPECLIST	"
RECLIST	"
Creation SRF	Mid April
Tabulation	Third Week April
ITEMTAB	"
AMENDSRF	"
DUPLICS	"
AMENDIAF	End June

It was emphasised that there should be a minimum of delay in forwarding printouts, test data etc., next year. As, in future, programs will probably be developed and tested in Canberra, it was essential that there should be a prompt response from the States to requests by the programming team in order to ensure availability of programs by the Scheduled dates.

AGENDA ITEM 4. FUTURE DEVELOPMENT OF THE A. & P. A.D.P. SYSTEM

Following the full consideration given to the 1967-68 A. & P. A.D.P. system, some attention was given to further desirable features of the system which should be developed. Each State put forward certain suggestions and the following is a summary of those features which were discussed:-

- (i) The incorporation of further checks on the feasibility of data, or pre-determined relationships between one item-field and another.
- (ii) The development of comparable computer print-outs for two consecutive years.
- (iii) Use of the computer to facilitate coverage checking.
- (iv) Use of computer print-outs in respect of certain statistical areas, which were unduly troublesome, as a basis for undertaking follow-up evaluation field operations. (In this connection reference was made to the practice adopted in New South Wales and Western Australia of undertaking query action and feeding back replies into the system by means of amendments of the S.R.F.).
- (v) The production of tabulations in a form suitable for direct use in publications.
- (vi) The incorporation of supplementary collections in the main A. & P. system.
- (vii) Automatic computer insertion of data in cases where crop acreage was reported but no crop production.
- (viii) Further efforts to incorporate more subjective editing into the system in order to reduce the present clerical work load.

2. There was also some discussion on the extent to which individual States should undertake investigation and development of new features for the A. & P. A.D.P. system. It was felt that while any action of this nature could be beneficial it was important that the States concerned should keep Central Office advised, and furthermore, should as far as possible undertake such work for the general benefit of all States rather than for its own individual benefit.

AGENDA ITEM 5(i). A. AND P. EDIT ANALYSIS, 1966-67

Further to correspondence with the States earlier in the year, Central Office outlined the A.D.P. system which was in course of development for the edit analysis of the 1966-67 A. and P. census. A paper setting out the main features of the edit analysis together with specimen tabulations, was distributed.

In addition, a verbal report was given of the A.D.P. system for the analysis. It was explained that little logical editing of input data will be possible, although data will be subjected to appropriate physical edits. The amendment of errors detected will be provided on a deletion and insertion basis for the whole of the particular computer record involved. The basic records involved in the computer analysis will be contained on a Sample State Returns file (comprising final records from the A. and P. systems S.R.F. for each return included in the edit analysis) and the Edits File (comprising records of edit action on sample returns punched specifically for the analysis). Analysis programs will be applied to aggregate data on an item basis obtained from these files to produce the required tabulations. In addition, data retrieval facilities are being considered for use in further scrutiny of output.

Punching Instructions for recorded edit action on returns included in the analysis would shortly be issued to the States. The location of edit analysis processing was undecided at the present time and would largely depend on the availability of computer time.

It was anticipated that Tabulation 1 would be produced at the end of 1967, and the remaining tabulations would be available during the first 3 to 4 months of 1968. However, this timing should be subject to the demand for A.D.P. resources on the main A. & P. A.D.P. system and form addressing.

The States expressed general satisfaction with the system and the tabulations to be produced. A suggestion to revise the class intervals of percentage change in data value in the specimen Table 3 was noted. It was also noted that tabulations would not be required below Statistical Division level.

Queensland reported that some preliminary investigation of subjective editing had been undertaken in respect of 1966-67, and quoted some resulting figures on the frequency and distribution according to edit type.

Central Office concluded by emphasising the importance of maintaining the momentum of investigations of subjective editing after this analysis was produced.

AGENDA ITEM 5(ii). FARM SIZE AND TYPE CLASSIFICATION

Factors causing the delay in publication of these statistics were discussed. These included problems with the category "unused", the problem of reconciling farm size and type data with published data, the listing and examination of impossible and improbable cells, restricted computer time, and circulation of table headings and receipt of State comments.

2. Final tabulations for publication would take priority over special State tabulations at the L.G.A. level. These special tabulations would be run at Central Office, but it was unlikely that they would be prepared before January 1968.

3. States were asked if the revised table headings, which had been circulated earlier in the Conference, were acceptable. Victorian, Western Australian and Tasmanian delegates indicated they were satisfactory. N.S.W., Queensland the South Australian delegates said they would have to confer with their State offices and give the headings further examination before a decision would be reached.

4. Central Office stated that the date of the next farm size and type classification had not been fixed, but would possibly be in 1969-70, to coincide with F.A.O. World Census of Agriculture.

AGENDA ITEM 6. FARM EXPENDITURE SURVEY, 1966-67

A brief report was made on the investigations and developments currently being undertaken by Central Office with a view to establishing a farm expenditure survey.

Arrangements had been made to conduct pilot sample surveys in three shires of New South Wales which typified cereal-sheep, cattle, and mixed farming, respectively. Both mail and field enumeration collection methods were being tested. In addition, the suitability of alternative questionnaires would be assessed.

Field survey operations were to be undertaken in the shire of Weddin (cereal-sheep) during the week following the conference. In addition to conducting field enumeration interviews with farmers, a proportion of sample farmers who had already submitted mail returns would be interviewed for the purposes of evaluation. Similar field survey operations would be undertaken in the Shires of Shoalhaven (cattle) and Lyndhurst (mixed farming) shortly afterwards.

It was intended that all States should have the opportunity of participating in these field operations in 1967. In addition to providing officers with experience in field operations in farming, this would enable States to be more closely associated with the development of farm expenditure statistics and prepare the way for extension of activities to other States.

AGENDA ITEM 7. 1967-68 A. & P. FORMS

The A. and P. forms to be used in the 1967-68 Census were reviewed and discussed, as a result of which the following matters were agreed.

Machinery on Holding.

Detailed triennial dissection - pick-up balers. Following discussions regarding the usefulness of asking informants to classify these machines as power take-off, engine-functioned or self-propelled, as in previous triennial collections, it was agreed that VIC., S.A., W.A. and TAS. would discontinue collecting information regarding source of power in respect of pick-up balers. It was also agreed by these States that no details of type of tie (wire or twine) or age of these machines would be collected. As a result for 1967-68 pick-up balers will be collected as a single item only by these four States.

Detailed triennial dissection - forage harvesters. VIC., S.A., W.A. and TAS. agreed that it was no longer meaningful to classify these machines by power source and consequently for the 1967-68 collection these machines will be collected as a single item by these States. For both pick-up balers and forage harvesters, it is possible that New South Wales and Queensland will continue to collect the old classification used in previous collections. They will examine the position in their respective State and advise Canberra accordingly.

Detailed triennial dissection - mowers. It was agreed that for 1967-68 all States would adopt a lay-out similar to Queensland's present dissection; viz.

Mowers, Agricultural -
Reciprocating (cutter bar) type -
Power - driven (including P.T.O.)
Ground - driven.

Triennial collection of sheep breeds. For 1967-68, Queensland and South Australia will collect breeds of sheep as a two field item (Rams one year and over, and all other sheep). This will bring these two States into line with the presentation used by the other States.

Lambing forecast. All States agreed that for 1967-68, additional information in the Lambing Forecast section of the form relating to months of mating would be collected. New South Wales, Victoria, Queensland and Western Australia had included a section on months of mating in the draft A. & P. forms submitted at the Conference. It was agreed that on the W.A. form the column headed 'Merino Ewes' would be placed before 'Crossbred Ewes' and that the hatchings shown under the heading 'State Month of Mating' would be deleted. With these alterations it was agreed that all States (except perhaps New South Wales) would adopt a layout similar to that of Western Australia.

New South Wales will investigate with large properties in their State, the question of multiple months of mating before deciding whether to change their proposed layout to one similar to Western Australia.

Irrigation. Statistics for 1966-67 were not available at the time of the Conference but the following is a summary of the various States' experience with this section of the A. & P. form together with their intended alterations for 1967-68 - New South Wales - In general it was found that this section of the form was well answered by informants and no changes will be made for 1967-68. N.S.W. does not consider it necessary to insert a section on type of power.

Victoria - For 1966-67, Victoria had trouble agreeing the totals of crops irrigated with method of irrigation and consequently for 1967-68 VIC. will adopt a layout similar to that used by Western Australia. For 1967-68 a section on source of water will be inserted. Victoria does not consider it necessary to insert a section on type of power.

Queensland - No changes will be made to this section for 1967-68. Will retain question on type of power.

South Australia - For 1967-68 a section on source of water will be inserted. For 1969, S.A. will consider using a layout similar to that of Western Australia for method of irrigation.

Western Australia - Layout had been changed extensively for 1967-68 to include sections on Method of irrigation, Source of water and water resources on holding.

Tasmania - will adopt W.A. layout in regard to method of irrigation and will make investigations on the suitability of inserting a section on source of water.

For 1967-68, Victoria, Western Australia and Tasmania will be on a comparable basis as regards Source of water and method of irrigation employed.

Artificial fertilizers. For 1967-68, Victoria has split up the section on quantity of superphosphate used to obtain details of 'Single Strength' and 'Double and Treble Strength'. Victoria will report on the results of this new dissection next year.

Size of form. For 1967-68, Victoria, Queensland and Tasmania have adopted international size paper (A4 paper). The printers concerned in the other three States have not as yet adopted international size paper and consequently New South Wales, South Australia and Western Australia will not be changing the size of their A. & P. forms for 1967-68.

It was agreed by all States that black printing would be used for 1967-68.

AGENDA ITEM 8. PROGRAMME FOR FUTURE DEVELOPMENT OF RURAL STATISTICS

Consideration was given to a paper circulated prior to the Conference, which outlined the various rural statistical subjects, and their priority, which required future investigation and development. This paper was based on State replies to a Central Office letter on this matter in April 1967.

It was recognised that the realization of any such program of development must be dependent on the availability of resources, and subject to the demands of top priority work such as the A.D.P. system, and form addressing and collection control. At the same time it was essential that a program should be mapped out and implemented as and when the opportunity was created. Furthermore, while each State might have its own ranking of priorities in respect of problem areas, the optimum use of limited resources for development could only be achieved by co-ordination of effort by all States. For this reason it was emphasised that any development work undertaken by an individual State should be approached on a broad basis as far as possible rather than be centred on the individual situation in one State.

Discussion of the development subjects, and their priority and timing, revealed particular interest by States in the definition of a rural holding, investigation of milk utilization, more analysis of collection methods in relation to product mix on farms, and the improvement of crop acreage and production forecasting.

Central Office concluded by undertaking to keep the situation under constant review and, in close conjunction with State offices, to initiate and co-ordinate development.

AGENDA ITEM 9. VALUE OF PRODUCTION

Discussion first centred on the paper prepared and circulated prior to the Conference on this item, and a further paper prepared by National Income Branch on questions of concept and terminology. National Income suggested that the general problem of value of production be tackled by the working group method, and that targets be set which would ensure that farm accounting problems would be solved about the same time span as for the remainder of the industries sector of the economy.

Wholesale Prices Branch (Mr Lindsay) then gave a run down of investigations being carried out on agricultural prices. These investigations arose as a result of updating and reversing the basic foodstuffs index which is now some 30 years old and in its present form no longer serves the purpose for which it was designed. Mr Lindsay explained that he was concerned with goods coming into the manufacturing sector, and naturally a large number of items originate from the primary sector. Problems of definition regarding the boundaries of the two sectors have arisen and these have given rise to problems of price levels. Preliminary list of commodities to be used in the index includes: meat products, fish, milk for various purposes, grain, fruit and vegetables for processing, tobacco, timber, wool. Field work is presently being conducted in N.S.W. and the following commodity investigations have been completed: Potatoes for crisps, barley for malting, vegetables, fresh and frozen, hides, fruit, cream and wholemilk, wheat. It was suggested that the State A. & P. Sections keep themselves informed on this project as much useful information for the purposes of value of production could arise out of them.

Central Office then distributed a document on prices at principal markets based on information supplied by State offices and invited discussion on information contained therein. Tas. Vic. and W.A. mentioned that they made supplementary collections on prices. Tasmania stated that it requested informants to state whether marketing costs were included in the price obtained and if so to specify them.

A discussion then took place on the paper "Sources of Data and Methods Used to Estimate Marketing Costs of Rural Products for the Estimation of Local Production" which had been distributed prior to the conference. In the limited time available only two items-wheat and wool-were examined. Some discussion took place on the sub-items of transport, levies, insurance for both items.

APPENDIX ACOMPUTER ERROR ANALYSIS

ERROR TYPE		NSW	VIC	QLD	SA	WA	TAS.	TOTAL
1.	Wrong Total - Employees (M)	--	672	--	105	--	25	802
2.	Employees (F)	--	269	--	43	--	88	400
3.	Utilisation	--	1,117	829	--	548	378	2,872
4.	Wheat	4,234	--	--	39	--	--	4,273
5.	Wheat Varieties	1,888	--	--	167	218	--	2,273
6.	Oats	4,673	--	--	49	--	--	4,722
7.	Oats Varieties	2,697	--	--	83	131	--	2,911
8.	Barley	1,026	--	--	28	--	--	1,054
9.	Barley Varieties	--	--	--	92	47	--	139
11.	Field Peas Varieties	--	--	--	1	--	--	1
12.	Crops	--	581	451	--	159	428	1,619
13.	Land Cropped	--	636	491	--	--	291	1,418
14.	Maize	975	--	--	--	--	--	975
15.	Sorghum	907	--	--	--	--	--	907
16.	Rye	157	--	--	4	--	--	161
17.	Lucerne	--	--	--	20	--	--	20
18.	Sugar Cane	158	--	--	--	--	--	158
19.	Grass and Clover	7,413	--	--	--	--	180	7,593
20.	Vegetables	2,601	--	123	107	91	196	3,118
21.	Vegetables Seeds	38	--	21	--	--	15	74
22.	Citrus Bearing	2,437	--	--	15	--	--	2,452
23.	Citrus Non-Bearing	1,420	--	--	49	--	--	1,469
24.	Citrus Production	2,284	--	--	60	--	--	2,344
25.	Other Orchard Bearing	3,056	--	--	118	--	--	3,174
26.	Other Orchard Non-Bearing	1,824	--	--	72	--	--	1,896
27.	Other Orchard Production	2,962	--	--	112	--	--	3,074
28.	Small Fruit Bearing	--	--	--	--	--	23	23
29.	Small Fruit Non-Bearing	--	--	--	--	--	7	7
31.	Grapes Bearing	--	--	--	14	--	--	14
33.	Grapes Production	--	--	--	12	--	--	12
34.	Area Fertilised	--	--	--	--	--	747	747
35.	Superphosphate	--	--	--	--	--	662	662
36.	Other Fertilisers	--	--	--	--	--	269	269
37.	Irrigation Area	1,621	--	--	--	122	160	1,903
38.	Irrigation Source	294	--	--	--	--	--	294
39.	Irrigation Method	282	--	--	--	--	--	282
40.	Cattle	12,480	910	597	598	639	433	15,657
41.	Pigs	1,133	106	104	--	83	73	1,499
42.	Sheep Breeds	--	--	--	284	--	218	502
43.	Ram Breeds	--	--	--	--	--	120	120
44.	Sheep and Lambs	6,628	769	106	828	1,148	188	9,667
45.	Ewes mated	2,613	--	34	--	225	174	3,046
46.	Lambs mated	--	--	--	--	--	47	47
47.	Sheep shorn	16,918	430	--	216	439	390	18,393
48.	Wool	8,193	1,007	--	487	827	346	10,860
49.	Horses	3,355	--	96	--	--	--	3,451

ERROR TYPE		NSW	VIC	QLD	SA	WA	TAS	TOTAL
56.	Disagreement- Batch Stat.Div.-Return Stat.Div	--	--	--	--	--	126	126
57.	Batch LGA - Return LGA	192	--	34	--	--	--	226
58.	Batch District-Return District	--	--	--	36	--	--	36
59.	Batch Police-Return Police	--	--	34	--	--	143	177
60.	Area Holding-Area Utilisation	--	1,773	1,096	--	696	435	4,000
61.	Harvester Details	1,263	720	601	384	291	67	3,326
62.	Area Crops-Area Utilisation	--	768	771	--	297	223	2,059
63.	Wheat Varieties	766	--	--	198	287	--	1,251
64.	Oats Varieties	786	--	--	116	255	--	1,157
65.	Barley Varities	--	--	--	99	42	--	141
66.	Field Peas Varieties	--	--	--	5	--	--	5
67.	Total Vegetables-Vegetalbes (Crops)	--	--	151	--	120	95	366
68.	Vegetables Seeds - Crops	--	--	28	--	7	20	55
69.	Total Plantation-Plantation (Crops)	--	--	151	--	38	--	189
70.	Small Fruit - Crops	--	--	--	--	--	28	28
71.	Area Grass-Grass Utilisation	--	--	--	--	--	392	392
72.	Wheat Fertilised	--	185	--	--	403	--	588
73.	Cereals Fertilised	--	117	--	--	351	--	468
74.	Vegetables Fertilised	--	72	--	--	--	--	72
75.	Orchards and Vines Fertilised	--	74	--	--	--	--	74
76.	Other Crops Fertilised	--	49	--	--	--	--	49
77.	Pasture Fertilised	--	267	--	--	--	--	267
78.	Irrigation Area-Source	--	--	143	--	--	--	143
79.	Irrigation Source - Method	--	--	130	--	--	--	130
80.	Breeds Rams	--	--	--	--	--	77	77
81.	Breeds Sheep and Lambs	--	--	--	994	--	285	1,279
83.	Irrigation source-Power	--	--	96	--	--	--	96
86.	Harvesters Illegal Propulsion	89	17	34	14	1	2	157
87.	Illegal Front	108	26	106	16	1	4	261
88.	Illegal Cut	212	172	122	44	27	24	601
89.	Illegal Age	288	112	112	121	22	12	667
94.	Illegal Data	1,086	122	681	177	141	163	2,370
95.	Item	2,014	1,187	848	389	245	346	5,029
96.	Section	216	67	94	33	44	24	478
97.	Page	205	20	28	17	20	10	300
98.	Holding	109	121	47	16	9	21	323
99.	L.G.A.	8	916	--	--	50	--	984
100.	County	--	191	--	--	--	--	191
101.	Parish	--	194	--	--	--	--	194
102.	Police	4,079	150	1	--	--	--	4,230
103.	Too few fields	724	186	351	147	97	111	1,616
104.	Too many fields	301	76	165	49	55	86	732
105.	Duplicated item	85	40	76	33	17	40	291
106.	Page 0 Unpunched	435	85	113	29	60	16	738
109.	Too many errors	3	1	--	--	6	2	12
110.	Area not reported	788	2,988	751	601	483	317	5,928

APPENDIX B

List of "desirable" facilities		N.S.W.	VIC.	QLD.	S.A.	W.A.	TAS.	No. of A	No. of B
Automatic adjustment to eliminate disagreement for cereal varieties and sheep breeds.	A	5A	6A	9B	4A	12	16	3	1
Use of previous year's records for batches.	B	11	1A	14	7B	2A	1	2	1
Comparable batch summaries.	C	10	2A	5A	13	3A	2A	4	-
Alpha description on batch summaries.	D	12	3A	8B	2A	7B	10B	2	3
Computer calculation of estimates.	E	6B	5A	12	6A	8B	15	2	2
Alpha description in AREATAB.	F	1A	8B	3A	1A	11	5A	4	1
Special ratios and yields in ITENTAB format.	G	7B	9B	4B	11	9	6A	1	3
Conditional count in ITENTAB format.	H	8B	16	10B	12	16	7A	1	2
Comparative figures in AREATAB (and ITENTAB).	I	2A	7B	2A	3A	5A	3A	5	1
Comparative data on SPECLIST	J	13	15	6A	15	6A	4A	3	-
Increase no. of batches in SPECLIST	K	16	13	15	16	13	11	-	-
Prefixes on SPECLIST holding numbers.	L	4A	14	7B	14	15	12	1	1
Additional indicators in S.R.F.	M	15	10B	13	8B	1A	8	1	2
Insertion of returns through AMENDSRF	N	9B	11B	11B	9B	14	14	-	4
Sub-totals in SPECLIST with option to suppress details of individual holding	O	14	12B	16	10B	10	13	-	2
Credits advised but yet to be included	P	3A	4BA	1A	5A	4A	9	5	-

"Essential" feature:-

1. Drop page number check.
2. Replace "unread" by an asterisk and introduce a specific error message.
3. Correct N.S.W. problem with irrigation by changing the edit from a wrong total to a disagreement edit.
4. Correct the handling of decimals in type 5 amendments.
5. Inclusion in the system of the facility to amend to zero on the S.R.F.
6. S.A. hash total for citrus tree check.
7. ITEMTAB to be available at police patrol level.
8. Victoria to have an edit on irrigation section.
9. County Code on SPECLIST for Victoria.
10. Returns with parity and checksum errors deleted automatically at batch edit and amendment stages and an appropriate error message printed; and returns containing parity and checksum errors to be automatically deleted from S.R.F. when AMEND SRF run.
11. Facility to select areas and items in PARTAGG.
12. All data to be listed in query lists and RECLIST, including prefixes.
13. All data in holding records to be available for amendment.

1. The page number shall be...
2. The word "and" shall be...
3. The word "or" shall be...
4. The word "but" shall be...
5. The word "yet" shall be...
6. The word "so" shall be...
7. The word "for" shall be...
8. The word "because" shall be...
9. The word "since" shall be...
10. The word "as" shall be...
11. The word "inasmuch" shall be...
12. The word "whereas" shall be...
13. The word "in view of" shall be...
14. The word "inasmuch as" shall be...
15. The word "inasmuch as" shall be...
16. The word "inasmuch as" shall be...
17. The word "inasmuch as" shall be...
18. The word "inasmuch as" shall be...
19. The word "inasmuch as" shall be...
20. The word "inasmuch as" shall be...



